Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 6/7/11 at 9:00 a.m.

Objective: Provide advice to the Water Operations Management Team (WOMT) and National Marine Fisheries Service (NMFS) on measures to reduce adverse effects from Delta operations of the Central Valley Project and the State Water Project on salmonids and green sturgeon. DOSS will coordinate the work of other technical teams. DOSS notes and advice can be found at: http://swr.nmfs.noaa.gov/ocap/htm

DWR: Andy Chu, Mike Ford, Angela Llaban, Cynthia LeDoux-Bloom
FWS: Roger Guinee, Nick Hindman, Pat Brandes
NMFS: Barbara Rocco, Barb Byrne, Jeff Stuart, Garwin Yip
DFG: Robert Vincik
Reclamation: Thuy Washburn, Josh Israel
EPA, **SWRCB:** not present

Agenda

1) Fish monitoring data
2) Current operations
3) VAMP and San Joaquin River flows
4) DCC gate closure plan
5) Data needs document
6) 2011 I:E implementation procedures (implementation 1:1 through June 15)
7) CVP Exports

Fish Monitoring: The following table presents the fish monitoring data from 5/31 to 6/7/11. For additional info: http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm

Location	Chipps Is. Midwater Trawl	Sac R Kodiak Trawl	Mossdale Kodiak Trawl	Beach Seines	Knights Landing RST	Tisdale Weir RST	Moulton Weir RST
Sample Date	5/31, 6/1, 6/3	5/31, 6/2	5/31–6/7	5/31–6/3	5/31, 6/2, 6/4, 6/6	5/31, 6/1, 6/3, 6/6	
Total Catch	**240**	**30**	**772**	**9,727**	**15**	**11**	
FR	213	30	Presumed fall run: 640 (8 escaped the nets and are not included; 1 purple upper caudal [PuUC])	49	15	11	
LFR							
WR							
SR	2						
(Ad-clips)	25		132	6 + 3 PuLC			
DS				1			
LFS							

SPTL				9,668			
SH (ad-clip)							
SH (natural)							
Water Temp. (avg. °F)	60.8	58.5		60.4	60.5	Data not provided	
Flows (avg. cfs)					14725	Data not provided	
Turbidity (avg. NTU)					20.6	Data not provided	
FR/SR Avg. CPUE					0.93	0.81	
WR/LFR Avg. CPUE					0	0	

Key: FR = Fall run; LFR = Late-fall run; SR = Spring run; WR = Winter run; SH = Steelhead; DS = Delta smelt; LFS = Longfin smelt; SPTL = Splittail, CPUE = catch per unit of effort.

Mossdale: The seasonal total to date for unclipped Chinook caught at Mossdale has increased to nearly 10 times that of last year. Four steelhead have been caught since 4/4; the "4th" was caught on 5/24/11.

Beach Seines: 9,668 splittail were caught, most are from the Mokelumne system, 1 delta smelt was caught at Sandy Beach.

Chinook salmon 5/31–6/5/11

Loss*	CVP	SWP
Winter-run	0	0
Spring-run	338	2,910
Fall-run	1,036	7,824
Late fall-run	0	0

*weekly non-clipped Chinook loss estimated from salvage data at Delta fish facilities

Chinook salmon Loss Density

CVP: Fall-run clipped =186 salvaged and 122 lost; spring-run clipped = 64 salvaged and 47 lost

SWP: Fall-run clipped = 119 savaged and 575 lost; spring-run clipped = 68 salvaged and 330 lost

Splittail salvaged: CVP: 370,711**;** SWP: 185,307

Most splittail are coming from the San Joaquin River as indicated by the higher numbers at the CVP than SWP. There might also be some from Yolo bypass, Mokelumne R. floodplain, and Cosumnes R. floodplain.

Coded Wire Tags(CWTs): One CWT in the winter-run size category turned out to be from the Mokelumne R. hatchery; 34 CWTs were read out of 68 collected; these turned out to be fall and spring run but they are still being sorted out for the hatchery source. There are still 116 unread CWTs, 16 of which have been missing for quite a while now. All were collected at the CVP; none were from the SWP facilities.

Sturgeon: The adult green sturgeon rescued recently in the Yolo Bypass were released into the Sacramento River system. They will most likely spawn upstream near the Red Bluff Diversion Dam; sturgeon eggs have been observed at five locations upstream of Battle Creek. Adult green sturgeon have been observed in the Feather River, however, eggs have not been collected to confirm spawning. More than 12 adult green sturgeon have been seen there. They usually seek high water and deep pools that are approximately 10 to 20 feet deep.

Data Needs: Trawl data are not being reported consistently. The data on zero catches are not making it into the DFG data sheets. For example, FWS puts together Mossdale daily summaries that report on all the trawls and when others do not use the same type of spreadsheet, it becomes difficult to compare the results. FWS lists every trawl and what they caught; DFG lumps all trawls together and reports a daily sum. DFG does not include the same data, such as volume, direction, duration, temp, clarity, weather, etc., that FWS collects. To make reporting more consistent, DFG and FWS need to discuss the protocols being used and decide on a standard. FWS (Brandes) and Reclamation (Israel) will discuss this issue after the conference call and try to come up with a plan to make the data reports more consistent. FWS (Brandes) will be assessing the monitoring program as a whole. This type of input is very helpful to them. NMFS (Byrne) will add this to the list of data needs that has been circulated; that is, to have DFG and FWS coordinate on data reporting. A draft worksheet will be sent to the agencies to ask whether they would agree to use it.

Action Item: FWS (Brandes) and Reclamation (Israel) will discuss the issue of data reporting protocols and consistency after the conference call and try to come up with a plan to make the data reports more consistent.

Salmon Weekly Loss Density: 5/31–6/5/11 Chinook: Loss density is zero.

Steelhead: Total is 33 clipped and 34 non-clipped at SWP; 4 clipped and 12 non-clipped at CVP.

SWP & CVP WILD STEELHEAD LOSS & LOSS DENSITY
05/31/2011 through 06/05/2011

Date	WILD STEELHEAD LOSS* (# fish) SWP	CVP	Combined	Combined wild steelhead loss density Loss Density (fish/TAF)
5/31/2011	25.98	0.00	25.98	5.28
6/1/2011	17.32	0.00	17.32	1.31
6/2/2011	0.00	5.44	5.44	0.29
6/3/2011	0.00	2.72	2.72	0.14
6/4/2011	103.92	0.00	103.92	5.24
6/5/2011	0.00	0.00	0.00	0.00

DWR-DES 6/6/2011
Preliminary, subject to revision
*SWP loss = salvage * 4.33, CVP loss = salvage * 0.68

Smelt working group (SWG) update: SWG notes are posted on the FWS website at: http://www.fws.gov/sfbaydelta/ocap/ No report from SWG this week.

Operations (June 7, 2011)

SWP		CVP	
Exports (cfs)			
Clifton Court Forebay	6,000	Jones Pumping Plant	4,200
Reservoir releases (cfs)			
Feather - Oroville	6,000	American - Nimbus	7,000
		Sacramento - Keswick	17,800
		Stanislaus - Goodwin	2,000
Reservoir Storage (TAF)			
San Luis (SWP)	938	San Luis (CVP)	910
Oroville	3,438	Shasta	4,444
		Folsom	891
		New Melones	2,102
Delta Operations			
DCC gates	Closed	Sacramento River at Freeport	39,528
Outflow Index (cfs)	45,900	San Joaquin at Vernalis	11,333
Total Delta Inflow (cfs)	54,724	OMR (daily)	
Water Temperature (°F)	61.7	OMR 5 day	-2,023
X2 (km)	61	OMR 14 day	+434
E/I ratio	20%		

San Joaquin River at Vernalis: The forecast is that flows will stay at approximately 11,000 cfs for the next few days. Vernalis should stay at this rate for at least 3 days and then might begin to drop (Tuolumne River releases went up, Merced River went down) until the snowmelt begins to affect the reservoirs.

American River at Nimbus: Releases will go from 7,000 to 9,000 cfs beginning today.

Sacramento River at Keswick: Releases should go down on Thursday to 12,750 cfs.

VAMP & San Joaquin Flows: VAMP fish releases were completed on 5/26/11. Both salmon and steelhead releases for the south Delta barriers study will begin on 6/15 and run through 6/20. The south Delta agricultural barriers will be going in on Old and Middle Rivers on 6/8 and 6/9. The construction on Old River at Tracy began on 5/27. Middle River is closed through today (6/7). The Grant Line barrier construction will begin next week. The barriers on Old and Middle Rivers will be finished this week.

6-year Study: Steelhead are not being released this week; 360 will be released next week for a survival study and 120 for the barrier tracking study in the south Delta. The 6-year study is not doing paired releases because it was more important to release the steelhead back at the end of April or during the first week of May. It looks like 3 or 4 sutured steelhead came through the fish facilities; the facilities are set up with acoustic receivers so we'll actually know the loss and efficiencies at those locations. Study results will not be available for 12 to 18 months from now; (note: agencies may need to make a decision about getting more timely data if they are depending on the results for management decisions). Should DOSS put together a write up for the annual review meeting on data timing and ask for feedback from the panel or should we discuss this among ourselves? To what level of sophistication are people interested? There may

be specific reasons that the agencies are using the type of equipment they are using (not having to buy new equipment, *etc*.); it's time to revisit this with the 6-year study.

Each year's actions should be informed by the previous year's results. If there is a delay in being informed, how do we make comparisons and decisions in subsequent years? DOSS should balance the protocols with moving to new technology, which is not always a smooth transition. Maybe DOSS can do a presentation at the annual review about what was tested and the pro and cons of the technology and timing, and why the choices that were made were made for this year.

The annual review panel does not weigh in on management of the RPA but does on weigh in on reporting, timeliness of data, detection sensitivity, *etc*. The panel might have advice regarding the science part of the study.

DCC Closure Plan: The proposal (distributed to DOSS) is a repeat of last year's study involving DCC gates closures to attract adult fall-run Chinook salmon to the Mokelumne River and reduce straying to the American River. Last year, the Lower Mokelumne Partnership (DFG & EBMUD) asked for a 10-day closure, but received permission for only 2 days; this year, DFG is again asking for a 10-day closure.

DOSS submitted a recommendation last year. There is coordination with various partners. DFG and EBMUD met with Reclamation (Israel) a few weeks ago. Reclamation has not yet met internally. A pulse flow on the Mokelumne River is scheduled to occur at the same time. Reclamation will review the proposal and send comments to the Lower Mokelumne Partnership. There is a need for a conceptual model. The DCC closure plan does not provide evaluation parameters, pulse flows, *etc*. DOSS will discuss and weigh in with advice this fall. Reclamation wanted to resolve the issue but not necessarily on an annual basis. Reclamation is not part of the partnership; not sure about DWR. We should email Joe Johnson (DFG) to find out whether DWR is involved in this.

Action Item: DOSS will discuss the DCC gate closure plan again when it meets in September.

Action Item: Chu will contact Joe Johnson (DFG) to find out whether DWR is involved in the DCC closure plan that was presented.

I:E implementation: Byrne sent out the final subgroup notes describing intended operations last Thursday (6/3/11). There were two things to check: Flow thresholds vs. flood monitor stage and the formula for the 14-day measured Vernalis flows.

A comment about threshold of flow or flood monitor stage; DOSS agreed that using either is appropriate but DFG suggested adding language from a fish-protection perspective not only a flood-protection perspective. NMFS does not want to exacerbate flood risks, but realized when they wrote the RPA, that DOSS would have to balance fish protection and flood issues. Considering these issues and how the RPA is written, no other specific language or revisions are needed. Thuy, Chu, and Byrne discussed the formula that explains the 14 days of Vernalis flow divided by average 14 days of exports: Vernalis at (T) - (revise definition to provide for the <u>previous</u> day of Vernalis flows). This allows for measured flow vs. the projected flow from the day before.

Action Item: Byrne will make final changes to the I:E Implementation Plan and send outto the DOSS group.

Fish Monitoring Data Needs: NMFS has included comments that have been submitted by the DOSS members. The spreadsheet specifies timing and frequency of sampling and reporting needs. Some sampling and reporting needs may not be fully clarified. The purpose of the document is a beginning point for presenting DOSS' data needs, which will be provided to Reclamation, DFG, and DWR to include in their conversations with the fish facilities and monitoring in general. There were no additional comments or revisions; therefore, Byrne will finalize the document and send it out to the DOSS group.

Action Item: Byrne and Oppenheim will finalize the fish monitoring data needs and distribute it to the DOSS group.

CVP Exports: The fish agencies have requested that exports be held below the 1:1 ratio on the CVP side using B2 water to augment (formerly referred to as a shoulder on VAMP). Jones pumping plant will go to three units tomorrow (3,000 cfs). The fish agencies recommended through the B2 Interagency Team that the CVP reduce by a1,000 cfs exports for at least 14 days to protect juvenile fall-run Chinook salmon coming out of the San Joaquin River system (since spawning was so low this year). This assumes that the SWP will agree to not to increase pumping additional water during this period. They have not yet heard the outcome.

Implementation of 1:1 Ratio: DWR (Chu) said that it can continue for 14 days but would only have true compliance (if beginning 6/1) for 6/14 and 6/15. This is something DOSS needs to discuss during the annual review process or discuss now. We should implement what is described in the I:E subgroup procedures for the 14-day flows.

DOSS advice to WOMT and NMFS: On Thursday, 6/2/2011, the projects (and WOMT) were notified by NMFS that the OMR limit of -3,500 cfs could be relaxed to -5,000 cfs. Because the reported wild older juvenile Chinook salmon and wild steelhead loss densities currently are below all trigger levels in Action IV.2.3, DOSS advises that the projects continue to operate such that OMR flows are no more negative than -5,000 cfs.

DOSS also advises that implementation of the 1:1 I:E ratio (required under Action IV.2.2 from June 1–June 15) continue to be implemented. DOSS advises that compliance under Action IV.2.2 be measured by a 14-day running average of inflows to exports (as with I:E implementation under Action IV.2.1); for tracking purposes a progressive daily average will be reported until a 14-day average is available.

Next Meeting: Conference call on Tuesday, 6/14/11, 9:00 a.m.